



11/05/2007

PATENT  
1321-12 PCT US

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Bright et al.

Group Art Unit: 1626

Serial No.: 10/518,878

Examiner: Rei Tsang Shiao

Filed: August 1, 2005

Dated: November 1, 2007

For: LOW ACIDITY PHOSPHATE ESTERS

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**SUPPLEMENTAL RESPONSE TO RESTRICTION REQUIREMENT**

Dear Sirs:

This Supplemental Response is being filed in addition to the Response to Restriction Requirement mailed October 30, 2007, which set a shortened statutory period of one month for response. This response is filed timely upon mailing with an executed Certificate of Mailing on or before November 2, 2007.

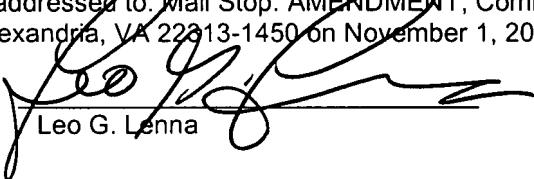
In the response filed on October 30, 2007, it was stated that the International Preliminary Examination Report was attached as Exhibit A. However, after sending the response the applicants realized that they failed to include the International Preliminary

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**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

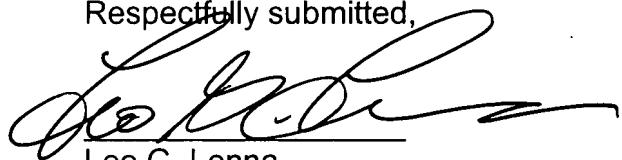
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postpaid in an envelope, addressed to: Mail Stop: AMENDMENT, Commissioner of Patents and Trademarks, P.O. Box 1450, Alexandria, VA 22313-1450 on November 1, 2007.

Dated: November 1, 2007

  
Leo G. Lenna

Examination Report with the response. Accordingly, in order to make the file complete, a copy of the International Preliminary Examination Report is attached herewith.

Respectfully submitted,



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## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

## (PCT Article 36 and Rule 70)

Applicant's or agent's file reference ACA6247WO	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US03/20013	International filing date (day/month/year) 24 June 2003 (24.06.2003)	Priority date (day/month/year) 25 June 2002 (25.06.2002)
International Patent Classification (IPC) or national classification and IPC IPC(7): C08K 5/48 and US Cl.: 524/115		
Applicant AKZO NOBEL N.V.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I  Basis of the report
- II  Priority
- III  Non-establishment of report with regard to novelty, inventive step and industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

Date of submission of the demand 16 December 2003 (16.12.2003)	Date of completion of this report 27 September 2005 (27.09.2005)
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/ US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Robert Shiao  Telephone No. (571) 272-1600

Form PCT/IPEA/409 (cover sheet)(July 1998)

**I. Basis of the report**

## 1. With regard to the elements of the international application:\*

 the international application as originally filed. the description:pages 1-5 as originally filedpages NONE, filed with the demandpages NONE, filed with the letter of \_\_\_\_\_ the claims:pages 6-8 as originally filedpages NONE, as amended (together with any statement) under Article 19pages NONE, filed with the demandpages NONE, filed with the letter of \_\_\_\_\_ the drawings:pages NONE, as originally filedpages NONE, filed with the demandpages NONE, filed with the letter of \_\_\_\_\_ the sequence listing part of the description:pages NONE, as originally filedpages NONE, filed with the demandpages NONE, filed with the letter of \_\_\_\_\_2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

 the language of a translation furnished for the purposes of international search (under Rule 23.1(b)). the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing: contained in the international application in printed form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form. The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4.  The amendments have resulted in the cancellation of: the description, pages NONE the claims, Nos. NONE the drawings, sheets/fig NONE5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)	Claims <u>NONE</u>	YES
	Claims <u>1-17</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-17</u>	NO
Industrial Applicability (IA)	Claims <u>1-17</u>	YES
	Claims <u>NONE</u>	NO

**2. CITATIONS AND EXPLANATIONS**

Claims 1-17 lack novelty under PCT Article 33(2) as being anticipated by Bright et al. US 5,041,596.

Applicants claim a composition having phosphate ester and an oxetane compound, see claim 1.

Bright et al. disclose a compound/composition having a pyrophosphate compound (i.e., phosphate ester) and a cyclic ether compound (i.e., oxetane compound), see column 2, lines 20-66, which clearly anticipate the instant composition having phosphate ester and oxetane compound.

Claims 1-17 lack an inventive step under PCT Article 33(3) as being obvious over Bright et al. US 5,041,596.

Applicants claim a composition having phosphate ester and an oxetane compound in claim 1 as flame-retardants and their processes.

Bright et al. disclose a compound/composition having a pyrophosphate compound (i.e., phosphate ester) and a cyclic ether compound (i.e., oxetane compound), see column 2, lines 20-66, and their processes of making, see columns 2-3. Bright et al. compound/composition is used as flame-retardants.

The difference between instant claims and Franklin et al. is that the instant claim (i.e., claim 1) silenee the formula of phosphate ester or an oxetane compound.

One skilled in the art would be motivated to employ the compounds of Bright et al. to obtain the instant compositions as flame-retardants, wheein pyrophosphate compound (i.e., phosphate ester) and a cyclic ether compound (i.e., oxetane compound) are used, and their processes of making.

The motivation to make the claimed compounds/compositions derives from the expectation that the instant claimed compounds/compositions derived from known Bright et al. compounds/compositions would possess similar activity (i.e., flame-retardants) to that which is claimed in the reference.

Claims 1-17 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

## ----- NEW CITATIONS -----

US 5.041.596 (BRIGHT et al.) 20 August 1991 (20.08.1991), entire document.

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

Claims 1 and 10 objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or contents thereof: the element "phosphate ester" or "oxetane compound" of claim 1 or 10 does not have limitation. Incorporation of the formula of phosphate ester in claim 2 or the formula of oxetane in claim 6 into the claims respectively, would obviate the objection.

## PATENT COOPERATION TREATY

## PCT

## NOTE OF INFORMAL COMMUNICATION WITH THE APPLICANT

(PCT Rule 66.6)

International application No.	Applicant's or agent's file reference	Date of informal communication (day/month/year)
PCT/US03/20013	ACA6247WO	27 September 2005 (27.09.2005)
Applicant AKZO NOBEL N.V.		

<u>Communication</u>	<u>Participants</u>	<input checked="" type="checkbox"/> Identity checked	<input type="checkbox"/> authorization checked	<input type="checkbox"/> personally known
<input checked="" type="checkbox"/> by telephone	<input checked="" type="checkbox"/> Applicant: AKZO NOBEL N.V.			
<input type="checkbox"/> personal	<input checked="" type="checkbox"/> Agent: George Kaplan			
	<input checked="" type="checkbox"/> Examiner(s): Robert Shiao			

Summary of communication:

Applicants requested for Preliminary Examination Report (i.e., PCT/IPEA/409) for Chapter II examination.

<input type="checkbox"/> An extension of time limit is granted (Form PCT/IPEA/427).
<input checked="" type="checkbox"/> A copy of this note is being sent to the applicant with Form PCT/IPEA/429.

Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/ US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Robert Shiao Telephone No. (571) 272-1600 
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Form PCT/IPEA/428 (July 1992)